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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/551,487	09/29/2005	Karsten Eichhorn	68897-011	3671

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HUSCH & EPPENBERGER, LLC
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ST. LOUIS, MO 63105-3441

EXAMINER

SHALLENBERGER, JULIE A

ART UNIT	PAPER NUMBER
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2875

DATE MAILED: 09/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/551,487

Applicant(s)

EICHHORN ET AL.

Examiner

Julie A. Shallenberger

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☒ Claim(s) 10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 9/29/05.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

The drawings are objected to because the drawings are of poor quality, they are inconsistent with the claimed subject matter and they do not show all the claimed subject matter, for example figures 1a, 4a, 6a, and 8a have darkened areas that render essential subject matter indistinguishable. Also it is not clearly shown how a break can form an asymmetrical LDB. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheets should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

Claim 8 recites the limitation "the light converting luminescent material" in line 2.

Claim 9 recites the limitation "the bottom side" in line 2.

Claim 10 recites the limitation "the luminous plate" in line 3.

There is insufficient antecedent basis for the limitations of these claims.

Claim 10 is objected to because it does not describe what is shown in the drawings.

Claim Rejections - 35 USC § 112

Claims 5 and 6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is not clear from the claims, specification, or drawings how a break forms an asymmetrical LDB. The drawings don't clearly show the break.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-4 are rejected under 35 U.S.C. 102(e) as being anticipated by Tsukamoto (2003/0189835).

Tsukamoto teaches a headlamp for a vehicle comprising a planar luminous panel with a bottom side 33 (figure 4), a plurality of luminous element chips 1-5 arranged in a recess of casing 31a which has trough-like edge portions (figures 2-4) which run peripherally in a path perpendicularly to the light emission of the panel and stand up from the bottom side of the recess, and optical element 35 in the beam path to produce a predetermined luminous intensity distribution [0027].

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsukamoto.

Considered in a different manner, Tsukamoto teaches a headlamp for a vehicle comprising a planar luminous panel with a bottom side 33 (figure 4), a plurality of luminous element chips 1-5 arranged in a recess of casing 31a which has trough-like edge portions (figures 2-4) which run peripherally in a path perpendicularly to the light emission of the panel and stand up from the bottom side of the recess, and optical elements 11-15 arranged in the light path of the light emitted from each diode.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to make optical elements 11-15 in the form of one lens that covers all of diodes 1-5 in order to reduce the cost of manufacturing.

Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsukamoto in view of Wang (2003/0213969).

Tsukamoto teaches the invention described above, but lacks the teaching of a light converting luminescent cast material to convert the luminous chips to white light, and a reflective coating on the bottom side of the recess.

Wang teaches [0016] a light-converting fluorescent coating 16, which covers diode 10 (figure 3).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Tsukamoto's headlamp with Wang's teaching of a color converting material in order to produce white light.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tsukamoto in view of Wang (2004/0164675).

Tsukamoto teaches the invention described above, but lacks the teaching of a reflective coating on the bottom side of the recess containing the diode.

Wang teaches a reflective coating on the bottom of a substrate which supports a light emitting diode [0009].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the headlamp taught by Tsukamoto with the reflective

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coating taught by Wang in order to direct more light forward from the light emitting diode.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Rodney (5,528,474) and Hochstein (6,045,240) teach similar LED lamp structures.

Zhan (2004/0170017) teaches a lamp with breaks 30.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julie A. Shallenberger whose telephone number is (571)272-7131. The examiner can normally be reached on Monday - Friday 830-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Renee Luebke can be reached on 571-272-2009. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Julie Shallenberger
Examiner 2875



RENEE LUEBKE
PRIMARY EXAMINER